

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1 (currently amended): A multi-stage pusher centrifuge for the separation of a mixture (2) into a solid cake (3) and into a liquid phase (4), including an outer screen drum (6) rotatable about an axis of rotation (5) and at least one screen stage (7) arranged in the outer screen drum (6), a mixture distributor (8) arranged in the screen drum (6) with a pusher base apparatus (9), with either the screen stage (7) or the pusher base apparatus (9) being arranged movably to and fro along the axis of rotation (5) such that the solid cake (3) is displaceable by means of the pusher base apparatus (9), and including an infeed device (10) with which the mixture (2) can be introduced via the mixture distributor (8) into an empty space (11) which arises on the displacement of the solid cake (3) by the pusher base apparatus (9), with the pusher base apparatus (9) including a pre-acceleration funnel (12) which extends in a substantially divergent manner in the direction towards the infeed device (10), ~~characterised in that wherein~~ the pre-acceleration funnel (12) is designed as a pre-acceleration screen (12), and wherein the pre-acceleration funnel has a curved extent and a pre-acceleration angle which becomes one of larger and smaller in the direction towards the infeed device.

Claim 2 (currently amended): A multi-stage pusher centrifuge in accordance with claim 1, wherein the pre-acceleration funnel (12) extends at a substantially constant pre-acceleration angle ( $\beta$ ) in a conically divergent manner in the direction towards the infeed device (10).

Claim 3 (currently amended): A multi-stage pusher centrifuge in accordance with claim [[1]] 17, wherein the pre-acceleration funnel (12) has a curved extent and the pre-acceleration angle ( $\beta$ ) of the pre-acceleration funnel (12) becomes larger in the direction towards the infeed device (10).

Claim 4 (currently amended): A multi-stage pusher centrifuge in accordance with claim ~~[[1]]~~ 17, wherein the pre-acceleration funnel (12) has a curved extent and the pre-acceleration angle ( $\beta$ ) of the pre-acceleration funnel (12) becomes smaller in the direction towards the infeed device (10).

Claim 5 (currently amended): A multi-stage pusher centrifuge in accordance with claim 1, wherein the pre-acceleration screen (12) is designed as a two-stage filter with a coarse filter (121) and a fine filter (122).

Claim 6 (currently amended): A multi-stage pusher centrifuge in accordance with claim 1, wherein a collection device (13) is provided at the mixture distributor (8) for the draining of liquid phase (4).

Claim 7 (currently amended): A multi-stage pusher centrifuge in accordance with claim 1, wherein a value of the pre-acceleration angle ( $\beta$ ) of the pre-acceleration screen (12) with respect to the axis of rotation (5) lies between  $0^\circ$  and  $45^\circ$ , ~~specifically between  $0^\circ$  and  $10^\circ$  or between  $10^\circ$  and  $45^\circ$ , in particular between  $25^\circ$  and  $45^\circ$ , preferably between  $15^\circ$  and  $35^\circ$ .~~

Claim 8 (currently amended): A multi-stage pusher centrifuge in accordance with claim 1, wherein the pre-acceleration funnel (12) is designed and arranged such that the pre-acceleration screen (12) is rotatable at a pre-settable speed of rotation about an axis of rotation (5) by means of a rotational drive (14).

Claim 9 (currently amended): A multi-stage pusher centrifuge in accordance with claim 1, wherein, at the infeed device (10), an inlet funnel (16) is arranged which extends at a substantially constant opening angle ( $\alpha$ ) in a conically divergent manner in the direction towards the pusher base apparatus (9).

Claim 10 (currently amended): A multi-stage pusher centrifuge in accordance with claim 1, ~~wherein the~~ including an inlet funnel (16) at the infeed device which has a curved extent and ~~the an~~ an opening angle ( $\alpha$ ) ~~of the inlet funnel (16) which~~ becomes larger in the direction towards the pusher base apparatus (9).

Claim 11 (currently amended): A multi-stage pusher centrifuge in accordance with claim 1, ~~wherein the~~ including an inlet funnel (16) at the infeed device which has a curved extent and ~~the an~~ opening angle ( $\alpha$ ) ~~of the inlet funnel (16) which~~ becomes smaller in the direction towards the pusher base apparatus (9).

Claim 12 (currently amended): A multi-stage pusher centrifuge in accordance with claim 1, ~~wherein the~~ including an inlet funnel (16) is designed at the infeed device configured as a pre-filter screen (17) for the pre-separation of liquid phase (4) from the mixture (2).

Claim 13 (currently amended): A multi-stage pusher centrifuge in accordance with claim ~~[[1]]~~ 12, wherein the pre-filter screen (17) is designed as a two-stage screen with a coarse screen (171) and a fine screen (172).

Claim 14 (currently amended): A multi-stage pusher centrifuge in accordance with claim ~~[[1]]~~ 12, wherein collection means (18) are provided for the collection and draining of the liquid phase (4) from the pre-filter screen (17).

Claim 15 (currently amended): A multi-stage pusher centrifuge in accordance with claim 1, ~~wherein the~~ including an inlet funnel (16) that is rotatably arranged about a drive axis (19) and that can be rotated at a pre-settable speed of rotation about the drive axis (19) by means of a drive (20).

Claim 16 (new): A multi-stage pusher centrifuge according to claim 7 wherein the value of the pre-acceleration angle lies between 0° and 10°.

Claim 17 (new): A multi-stage pusher centrifuge according to claim 7 wherein the value of the pre-acceleration angle lies between 10° and 45°.

Claim 18 (new): A multi-stage pusher centrifuge according to claim 7 wherein the value of the pre-acceleration angle lies between 25° and 45°.

Claim 19 (new): A multi-stage pusher centrifuge for the separation of a mixture into a solid cake and into a liquid phase, including an outer screen drum rotatable about an axis

of rotation and at least one screen stage arranged in the outer screen drum, a mixture distributor arranged in the screen drum with a pusher base apparatus, with either the screen stage or the pusher base apparatus being arranged movably to and fro along the axis of rotation such that the solid cake is displaceable by means of the pusher base apparatus, and including an infeed device with which the mixture can be introduced via the mixture distributor into an empty space which arises on the displacement of the solid cake by the pusher base apparatus, the pusher base apparatus including a pre-acceleration funnel which extends in a substantially divergent manner in the direction towards the infeed device, wherein the pre-acceleration funnel is designed as a pre-acceleration screen, and wherein, at the infeed device, an inlet funnel is arranged which extends at a substantially constant opening angle in a conically divergent manner in the direction towards the pusher base apparatus.

Claim 20 (new): A multi-stage pusher centrifuge for the separation of a mixture into a solid cake and into a liquid phase, including an outer screen drum rotatable about an axis of rotation and at least one screen stage arranged in the outer screen drum, a mixture distributor arranged in the screen drum with a pusher base apparatus, with either the screen stage or the pusher base apparatus being arranged movably to and fro along the axis of rotation such that the solid cake is displaceable by means of the pusher base apparatus, and including an infeed device with which the mixture can be introduced via the mixture distributor into an empty space which arises on the displacement of the solid cake by the pusher base apparatus, the pusher base apparatus including a pre-acceleration funnel which extends in a substantially divergent manner in the direction towards the infeed device, wherein the pre-acceleration funnel is designed as a pre-acceleration screen, and including an inlet funnel which has a curved extent and an opening angle which becomes one of larger and smaller in the direction towards the pusher base apparatus.